# Great Salt Lake Comprehensive Management Plan Revision



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SWCA Environmental Consultants

Laura Ault Utah Division of Fire, Forestry, and State Lands





Sound Science. Creative Solutions.





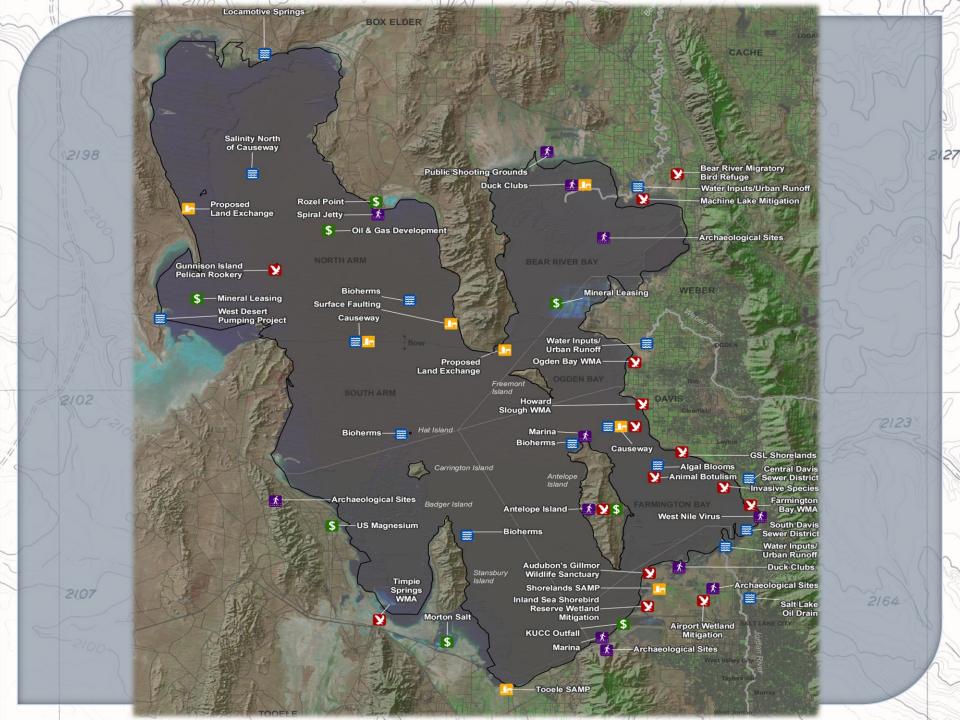
### FFSL Management Authority

- 65A-1-4 Division of Forestry, Fire, and State Lands Creation -- Power and authority.
  - (b) The division is the executive authority for the management of **sovereign lands**, and the state's mineral estates on lands other than school and institutional trust lands....
- 65A-10-8 Great Salt Lake Management Responsibilities of the division.

Prepare and maintain a comprehensive plan for the lake that...develops strategies to deal with a fluctuating lake level.

• 65A-2-1 Administration of state lands...

...administer state lands using multiple-use, sustained-yield principles.



North Arm 2198 **Locamotive Springs** BOX ELDER CACHE Salinity North of Causeway Bear River Migratory Bird Refuge **Public Shooting Grounds Duck Clubs**-Water Inputs/Urban Runoff Machine Lake Mitigation **Rozel Point-**Proposed Land Exchange Spiral Jetty Oil & Gas Development Archaeological Sites **Gunnison Island Pelican Rookery** WEBER **Bioherms** Mineral Leasing -Mineral Leasing **Surface Faulting West Desert** Causeway **Pumping Project** Water Inputs/ **Urban Runoff** Ogden Bay WMA

South Arm 2198 Proposed Land Exchange Ogden Bay WMA-Freemont Island DAVIS Howard Slough WMA Bioherms— Hat Island Marina Bioherms-Causeway **GSL Shorelands** -Algal Blooms Carrington Island **Central Davis** V—Animal Botulism Antelope Sewer District Invasive Species -Archaeological Sites Farmington Bay WMA Badger Island Antelope Island — 🔭 🔀 💲 West Nile Virus -US Magnesium South Davis
Sewer District Bioherms Water Inputs/ **Urban Runoff** Audubon's Gillmor Duck Clubs Stansbury Wildlife Sanctuary Island **Timpie** Archaeological Sites **Shorelands SAMP Springs** WMA **Inland Sea Shorebird** Salt Lake Reserve Wetland Oil Drain **Morton Salt** Mitigation **Airport Wetland KUCC Outfall** Mitigation **Archaeological Sites** Tooele SAMP

### Challenges to Management

- A seemingly simple, yet complex resource
  - No standards
  - Human impacts
    - Causeways, Mineral Extraction, Dikes, Pumping
- Fluctuating Lake Levels
  - 1985 High 4,212 feet
  - 1963 Low 4,191.35
  - 2010 Low 4,193 feet
- Multiple Uses
  - Mineral Extraction
  - Migratory Flyway
  - Recreation
  - Artwork
- Multiple Agency Involvement
  - State of Utah
  - Federal Agencies



### Other Management Authority

- State Parks DNR
  - Recreation, Navigational Hazards
- Oil, Gas and Mining DNR
  - Mineral exploration
- Water Resources DNR
  - West Desert Pumping Project
- Water Rights DNR
  - Water extraction
- Wildlife Resources DNR
  - · Hunting and Fishing permits, WMAs, Brine Shrimp
- Water Quality DEQ
  - Discharge Permits
- US Army Corps of Engineers
  - CWA 404 permits
- US Fish and Wildlife Service
  - Bear River Migratory Bird Refuge

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# Great Salt Lake Comprehensive Management Plan Revision

- Current Comprehensive Management Plan
  - Completed in 2000
  - New data
  - New issues
- Mineral Leasing Plan
  - Completed in 1996
  - New issues
- Revision Process
  - Began in February 2010
  - Estimated Record of Decision 2012



**Project Timeline** 

The Great Salt Lake (GSL) Comprehensive Management Plan (CMP) revision is a two-year process. We are currently holding the second of three rounds of public meetings in each of the five counties that surround the lake.

#### **Great Salt Lake Comprehensive Management Plan**

	2010	2011	2012
Project Kickoff Feb Ma	r. 2010		
Review Existing Data	Mar Jun. 2010		
Scoping Meetings	Jul Aug. 2010		
Draft Plan		Aug. 2010 - Oct. 2011	
Draft Affected Environmen	et/Lake Level Matrix Sep.	2010 - Mar. 2011	
Stakeholder Meetings		Jan Feb. 2011	
Draft Affected Environment Lake Level Matrix Public Me		May 2011	
Develop Management Stra	tegles	Mar Oct. 2011	
Draft Plan Review Meeting	3	Oct Nov. 2011	
Final Plan		Nov Dec. 2011	
Decision Document			Jan Feb.



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## What will the GSL CMP Revision look like?

- Emphasis on Lake Levels
  - FFSL mandate
  - Public concern
- How will the GSLCMP Revision look different?
  - A comprehensive look at how the ecosystem, infrastructure and industry are impacted at varying lake levels
  - Resource-specific management strategies at high, medium and low lake levels.
  - Areas of concern based on lake-level fluctuations
  - Coordination and cooperation opportunities with other State agencies that have the ability to directly impact a specific resource

### Lake Level Matrix

Comprehensive view
 of how all GSL
 resources are
 impacted at a range

Management Zones

of lake levels

• High: 4205 – 4213+

• Medium: 4198 – 4204

• Low: 4188 – 4194

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### Lake Level Management Strategies

#### Wetlands

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Resource issue: Encroachment of phragmities along shoreline

**Objective:** Prevent or minimize the encroachment of phragmities through management and coordination

Intersecting Agencies: DWiR, US Fish and Wildlife Services, EPA, USGS, BLM, USACE,

	High (4,218 – 4,205)	Medium (4,205 – 4,198)	Low (4,198 – 4,188)
	FFSL to prioritize areas around GSL for phragmities removal with other land managers	FFSL to prioritize areas around GSL for phragmities removal with other land managers	Implement FFSL-guided eradication techniques
2136	N/A – Phragmities and areas vulnerable to infestation inundated	Coordinate with WMA managers and other landowners to implement shared eradication techniques	Coordinate with WMA managers and other landowners to implement shared eradication techniques

Management Common to all lake levels:

- Identify funding mechanisms for invasive species removal
- Identify opportunities for use of phragmities in bio-fuel technology



Comprehensive Lake Management Resource Management Permitting Research

### Mineral Leasing Plan Revision

- Incorporate new data as it relates to mineral extraction
- Update types of uses and leases
- Incorporate sitespecific analyses in to leasing process, where appropriate

